

Full Resume of D K Dwivedi, Ph.D.

Name and Designation : Dheerendra Kumar Dwivedi, Professor
Date of Birth : Dec 02
Institution : Indian Institute of Technology, Roorkee
Department : Mechanical & Industrial Engineering
Field of Specialization : Material Processing, Surfacing and Joining technologies
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Academic Qualification (B.E. onwards):

Degree	University / Institution	Division/ Equivalent	Year of Passing	Specialization
B.E.	Govt. Engg. College, Rewa (MP)	(72.6%) 1 st	1993	Mechanical Engineering
M.E.	University of Roorkee	(70.4%) 1 st	1997	Welding engineering
Ph. D.	MNIT, University of Rajasthan Jaipur, India	Feb 2003		Metallurgical Engineering on "Production and Properties of Cast Al-Si Base Alloys"

Areas of consultancy:

- Residual life assessment and NDT of hydro mechanical components e.g. gates, penstocks etc.
- Corrosion testing and estimation of life
- Welding of metals of commercial importance
- Mechanical, corrosion and chemical analysis of mechanical splices/couplers
- Increasing life of tribological components through surface engineering
- Controlling residual stress and distortion in weld joints
- Tensile, fatigue and fracture toughness testing
- Manufacturing related issues of casting & welding, surfacing
- Development welding/hardfacing electrodes
- Failure analysis of mechanical components such as gears, penstocks, valves

Research experience

Duration	Organization	Area (s)
1996-1997	University of Roorkee, Roorkee	Welding (thermal sprayed coatings for wear resistance)
1999-2002	MNIT, University of Rajasthan, Jaipur	Production and properties of cast Al-Si base alloys
2001-2004	National Institute of Technology, Hamirpur, HP	On sponsored R & D projects as PI <ol style="list-style-type: none"> 1. Grain refinement of cast Al-Si Alloys 2. Machining Characteristics of Cast Al-Si base alloys
2004-till date	Indian Institute of Technology, Roorkee,	On sponsored R & D project <ol style="list-style-type: none"> 1. Thermal spraying for longer life of tribological components (SRIC, IITR) 2. Development of wear resistant piston materials (CSIR, New Delhi) 3. Development of Non-cobalt base surfaces by laser cladding for nuclear applications (BRNS, Mumbai). 4. Process modeling for twin wire SAW welding (DST). 5. Investigation on the Failure of Aluminium Transformers and Recommendation of Suitable Material for Manufacturing Transformer Windings (MOP, GOI) 6. Development of welding procedure for joining marine aluminium alloys (DST, GOI) 7. Weld-bonding of aluminium structures (ARDB, New Delhi) 8. Fracture and fatigue studies of friction stir welded joints of aluminium alloys (DST New Delhi) 9. Development of fracture and fatigue resistant cast aluminium alloys produced by semi-solid metal casting and conventional casting processes (DST, New Delhi) 10. Development of refined high strength cast hypereutectic Al-Si alloy (CSIR, New Delhi) 11. Development of nitrogen ion implantation of PVD coating on stainless steel substrates for improved mechanical and tribological performance (DST) 12. Development of diffusion bonding technology for producing bonding and fracture resistant bonds of stainless steels and titanium alloys with different inter-layers (SDF, MoS) 13. Investigation on plastic behavior of aluminium alloys during friction stir welding and its effect on weldability (DST) 14. Corrosion behavior of friction stir weld joint of aluminium alloys (CSIR, New Delhi) 15. Dissimilar steel welding by A-TIGW (BRNS) 16. Developing creep resistant Cr-Mo steel

		weld joints using activated flux GTAW and FSW (INSA)
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Teaching experience

Duration	Designation	Organization	Subjects (s)
Aug 21, 1995 to Aug 2, 2004	Lecturer/Sr Lecturer	N.I.T. (Formerly R. E. C.), Hamirpur	1. Production i.e. Manufacturing process, 2. Machining Science, 3. Welding engineering, 4. Unconventional machining, 5. Mechanical properties and heat treatment
Aug 3, 2004 to Sept 3, 2009	Assistant Professor	IIT, Roorkee	1. Manufacturing Techniques (UG) 2. Manufacturing Technology (UG) 3. Manufacturing Engineering for IIT Mandi
Sep 4, 2009 to April 3, 2014	Associate Professor	IIT Roorkee	4. Welding engineering (UG) 5. Total Quality Management (UG) 6. Work system Design (UG) 7. Principles of Industrial engineering (UG) 8. Quality Management (UG) 9. Surface engineering (UG) 10. Welding metallurgy (PG) 11. Failure Analysis of Weld Joints (PG) 12. Weldability of Metals (PG) 13. Design and analysis of welded joints (PG) 14. Theory of arc welding processes (PG) 15. Unconventional welding processes (PG)
April 4, 2014 to till date	Professor	IIT Roorkee	

Organization of Workshops & conferences: 04

- Organized workshop on “Advances in Joining Technologies: Friction Stir Welding” in association with QIP, IIT Roorkee on 03-11-2012
- Organized workshop on “Advances in Surface Modification Technologies: Friction Stir Processing” in association with QIP, IIT Roorkee on 30-11-2013
- Organized workshop on “Advances in Manufacturing Systems” in association with QIP, IIT Roorkee on 14-02-2015
- Organized workshop on “Advances in Solid State Joining Technologies” in association with QIP, IIT Roorkee on 27-02-2016

QIP/AICTE-ISTE Sponsored Short Terms Training Programs Organized (4)

1. National Institute of Technology, Hamirpur, on “Advances in Manufacturing Systems” w. e. f. Dec 23, 2002 to Jan 4, 2003, (2 weeks)
2. National Institute of Technology, Hamirpur, on “Reliability Centered Maintenance” w. e. f. June 23-28, 2003, (1 week).
3. National Institute of Technology, Hamirpur, on “Melt Treatment in Foundries” w. e. f. June 14-18, 2004, (1 week).
4. Indian Institute of Technology Roorkee, on Enhancing yield in foundry industries w.e.f. July 10-14, 2017

Continuing Education Course Organized (9)

5. Indian Institute of Technology, Roorkee on “**Combating Wear**” w. e. f. 29-5-2007- to 02-6-2007.
6. Indian Institute of Technology, Roorkee on “**Controlling erosion in hydro turbines**” w. e. f. 30-10-2007- to 02-11-2007.
7. Indian Institute of Technology, Roorkee on “**Controlling abrasion and erosion in cement plants**” w. e. f. May 7-10, 2008.
8. Indian Institute of Technology, Roorkee on “**Welding for fabrication and repair in hydro power industry**” w. e. f. Dec 20-23, 2008.
9. Indian Institute of Technology, Roorkee on “**Principles and practices in gas cutting, welding, brazing**” w. e. f. May 3-4, 2010 Sponsored by BPCL, India.
10. Indian Institute of Technology, Roorkee on “**Welding of alloy steel: controlling problems**” w. e. f. May 24-27, 2010.
11. GNEC, Indian Institute of Technology, Roorkee on “**Controlling residual stresses, distortion, and defects in weld joints**” w. e. f. July 15-17, 2011.
12. Indian Institute of Technology, Roorkee on “**Failure analysis and metallography**” sponsored by Shriram Piston & Rings, Gaziabad, w. e. f. Aug 27-31, 2012.
13. Indian Institute of Technology, Roorkee on “**Manufacturing Process for Quality Assurance**” sponsored by THDC, Rishikesh, w. e. f. Sep 27-28, 2012.

Video-lecturers delivered for NPTEL I Program of MHRD, Govt. of India

- 16 video lectures delivered on “work system design” under industrial engineering
- 14 video lectures delivered on various aspects of “manufacturing technology” under manufacturing technology

Web & Video lecturers prepared for NPTEL II Program of MHRD, Govt. of India

- 40 web lectures on “welding engineering” completed
- 40 video lectures on “welding engineering” completed

Video lecturers prepared for NPTEL III MOOCs Program of MHRD, Govt. of India

- 40 lectures completed on “Joining Technologies for Metals”

- 60 lectures completed on “Fundamentals of Manufacturing Processes”
- 40 lectures completed on “Failure Analysis and Prevention”
- 60 Lectures completed on “Fundamentals of Surface Engineering: Mechanisms, Processes and Characterization”

Awards and Recognition

1. **Binani Gold Medal** award 2001 for best paper of the year published Transactions IIM in area of non-ferrous group.
2. **Star performer for 2004-05** (a recognition by IIT Roorkee based on performance appraisal).
3. **Best paper award** for a research paper entitled “Effect of creep behavior on reliability of aluminium wound distribution transformers presented in XXXII National Systems Conference-2008 at IIT Roorkee.
4. **Best paper award** for research paper Ratnesh Kumar Raj Singh, Deepti Jaiswal, Rajesh Prasad, Sunil Pandey, Dheerendra Kumar Dwivedi, Effect of friction stir welding on microstructure and mechanical properties of Al-Zn-Mg alloy” presented at 1st National conference on Recent Advances in Technology and Engineering, w.e.f. Jan 2-22, 2012 at Manglaytan University, Aligarh
5. **Best paper award** for research paper A. K. Rajak, B. B. Kumar, C. K. Meena, –D. K. Dwivedi “Grain Refinement of Cast Al-Si-Mg Alloys Using Electromagnetic Stirring” published in proceedings of International Conference on Nanoscience, Nanotechnology & Advanced Materials, HongKong, Jan 27-28, 2018.
6. **Expert in technical papers committee** for National level Conference on “Advances and Recent Trends in Manufacturing” (CARTM-2003) on November 14 – 15, 2003 at Kalyani Government Engineering College.
7. **Co-chairman** for technical paper presentation (Mechanical Session) in National Level Seminar, National Institute of Technology, Hamirpur, HP, w. e. f. March 19-21, 2004.
8. **Chairman** for technical paper presentation in National Level Seminar, organized by National Institute of Technology, Hamirpur, HP, w. e. f May 1-4, 2004.
9. **Chaired** technical session in International Conference on “Advances in Materials Processing and Characterization” organized by Department of Mechanical Engineering, College of Engineering, Anna University, Guindy, Chennai, w. e. f. Aug. 28-30, 2006.
10. **Chaired** technical session in International Conference on “Materials Science and Engineering” organized by WASET, at Penang, Malaysia, w. e. f. Feb 22-24, 2011.

11. **Chaired** technical session in International Conference on “Manufacturing Research” organized by Cranfield University, at Cranfield, UK, w. e. f. Sep 19-20, 2013.
12. Member in panel of experts in area of thermal spraying coatings of BHEL, India
13. Delivered more than 65 invited lectures in various training programs, and workshops
14. UGC inspection committee for engineering college affiliated with different universities
15. PAC of UGC on research projects in area of mechanical and industrial engineering
16. Expert member, DRDL, Hyderabad visited on Jan 23, 2017

Member in Editorial Board of International Journals

- The Scientific World Journal: Materials Science
- International Journal of Metals
- American Journal of Materials Engineering and Technology
- Journal of Advanced Manufacturing Research

Membership of Professional Bodies

1. Indian Society for Technical Education: LM 22430
2. Indian Institute of Metals: LM 33427
3. Indian Society for Construction Materials and Structures: LM 668
4. TMS-2008: MEM 466457 (joined 9/3/08)
5. Professional member 466457 TMS -2012 (The metals, minerals and materials society) since 2-8-12

Foreign Visits

1. **New Orleans, USA**, for presenting research paper and attending International Conference TMS 2008 w.e.f. March 8-13, 2008
2. **Las Vegas, USA**, for presenting research paper and attending 17th International Conference on Wear of materials 2009 w.e.f. April 19-23, 2009.
3. **Universidade Federal de Uberlandia, MG, Santa Monica, Brazil** under Indo-Brazil research scheme from Nov 28 to Dec 6, 2009
4. **Universidad Autonoma de Zacatecas, Zacatecas, Mexico** under Indo-Mexican research scheme June 17 to July 5, 2010
5. **Universidad Autónoma de Nuevo León, Monterrey, Mexico** to explore possibility of collaborative research with Facultad de Ingenieria Mecanica y Electrica

6. **Penang, Malaysia**, for presenting research paper and attending International Conference ICMSE 2011 w.e.f. Feb 22-24, 2011
7. **Universidad Autonoma de Zacatecas, Zacatecas, Mexico** under Indo-Mexican research scheme June 11 to 30, 2011
8. **Orlando, USA** for attending TMS 2012 and presenting research paper from March 10-17, 2012
9. **Universidad Autonoma de Zacatecas, Zacatecas, Mexico** under Indo-Mexican research scheme June 22 to July 10, 2012
10. **Phuket, Thailand** for attending international conference on advances in..... mechanical engineering w.e.f. Dec 18-19, 2012
11. **Cranfield University, UK**, for attending international conference on manufacturing research w.e.f. Sep 19-20, 2013
12. **Physical Technical Institute, Minsk, Belarus** under Bilateral S & T cooperation program between India and Belarus w.e.f. Oct 6 to 12, 2014
13. **Bangkok, Thailand** for attending international conference on production and mechanical engineering w.e.f. Dec 30-31, 2014
14. **Kuala Lumpur, Malaysia**, attending international conference on tribology and interfaces w.e.f. June 11-12, 2015
15. **Chemnitz, Germany**, INSA-DFG Scientist Exchange programme w.e.f. July 6-26 2015
16. **University of Coimbra, Portugal**, under Bilateral S & T cooperation program between India and Portugal w.e.f. Nov 27 to Dec 3, 2015
17. **Port Luis, Mauritius**, for attending international conference on innovation in engineering and technology w.e.f. March 17-21, 2016
18. **Physical Technical Institute, Minsk, Belarus** under Bilateral S & T cooperation program between India and Belarus w.e.f. May 11 to 15, 2016
19. **Shanghai, China** for presenting research paper in Congress on Engineering and Technology 2016 w.e.f. Oct 21-23, 2016
20. **Los Angeles, USA** for presenting research paper in 21st International Conference on Wear of Materials w.e.f. March 25-31, 2017
21. **University of Coimbra, Portugal**, under Bilateral S & T cooperation program between India and Portugal w.e.f. May 22 to May 27, 2017
22. **Hong Kong** for presenting research paper in International Conference on Advanced Materials w.e.f. Jan 27-28, 2018

Other countries visited

23. **Paris, France**

24. **Madrid, Barcelona, Spain**
25. **Singapore**
26. **Dubai, UAE**
27. **Prague, Czech Republic**
28. **Rome, Venice, Milan, Italy**

Book Publication

- D. K. Dwivedi, Surface Engineering: enhancing tribological life of component subjected to wear, Springer, New Delhi, (2018), pages 260, (in press)
- D. K. Dwivedi, Production and properties of cast Al-Si alloys, ISBN 978-81-224-3451-4 New Age Publication, New Delhi, (2013), pages 215, (hard-bound)

International Collaborations: 05

Sr. No.	Project	Duration	Collaborative agency
1	Exploratory project to formulate a joint collaborative research project on "Development of welding procedure for enhanced fatigue performance of marine aluminium alloys by new welding processes"	2009-10	Dr. Américo Scotti Professor Universidade Federal de Uberlândia, Centro de Ciências Exatas e Tecnologia, Faculdade de Engenharia Mecânica. BLOCO M CAMPUS SANTA MONICA, SANTA MONICA 38400-902 – Uberlandia, MG – Brasil – Caixa-Postal: 593 (34) 32394192 Ramal: 240 (34) 32394206 E-mail: ascotti@ufu.br
2	Development of fracture and fatigue resistant cast aluminium alloys produced by semi-solid metal casting and conventional casting processes"	2009-12	Dr. Sergio Haro Rodríguez Researcher- Professor Maestria en Procesos y Materiales Unidad Académica de Ingeniería Universidad Autónoma de Zacatecas Av. López Velarde # 801 Zacatecas, Zac. MEXICO CP. 98000 Phone: +52 4929 239407 ext. 1618 Fax No.:+52 4929 222924 E-mail: haros907@hotmail.com
3	Development of nitrogen ion implantation of PVD coating on stainless steel substrates for improved mechanical and tribological performance	2013-16	Dr. Alexey Byeli Professor Physical-Technical Institute, Department of Plasma and Beam Processing, 10, Kuprevich Street, 220141 Minsk, Belarus Telephone No.:+375172638619

			E-mail: vmo@tut.by
4	Investigation on plastic behavior of aluminium alloys during friction stir welding and its effect on weldability	2014-17	Dulce Maria Esteves Rodrigues Professor Auxiliar Engenharia e Tecnologia-Engenharia dos Materiais, Universidade de Coimbra Faculdade de Ciências e Tecnologia Departamento de Engenharia Mecânica Polo 2, Rua Luís Reis Santos Coimbra, 3030-788 Coimbra, Portugal Telefone: (+351)239790700Extensão: 1324 Fax: (+351)239790701 E-mail: dulce.rodrigues@dem.uc.pt
5	Developing creep resistant Cr-Mo steel weld joints using activated flux GTAW and FSW	2014-15	PETER MAYR, Technische Universität Chemnitz, Institute of Joining and Assembly, Chair of Welding Engineering Reichenhainer Strasse 7009126 Chemnitz Deutschland Telephone:+49-37153139543 Fax:+49-37153123729 Email: peter.mayr@mb.tu-chemnitz.de

Expert/invited lectures delivered: 75

Sr. No.	Title of Lecture/Lecture Series	Date, Place and Programme where lectures delivered
1.	Maintenance of worn out surface, Hard facing and thermal spraying	MED, NIT under ISTE chapter, REC, Hamirpur, HP
2.	Wear friction behaviour of cast Al-Si alloys	24-12-02, NIT, Hamirpur, under STTP "Advances in Manufacturing Systems" Sponsored by AICTE-ISTE, NIT Hamirpur
3.	Treatment for strengthening of cast aluminium alloys	25-12-2002, Do
4.	Powder-metallurgy: An Introduction	25-12-2002, Do
5.	Surface roughness testing :lab work	27-12-2002, Do
6	Foundry Technology: An Introduction	14-6-06, NIT, Hamirpur, under STTP "Melt treatment in foundries" Sponsored by AICTE-ISTE, for 2004-05
7	Grain refinement and modification in aluminium foundries	15-6-04, Do
8	Mechanical behaviour of cast aluminium alloys	16-6-2004, Do
9	Melt treatment and wear behaviour of cast aluminium alloys	17-6-2004, Do
10	Production of metal matrix composite by stir casting	26-7-2006 Advances in manufacturing of composite materials
11	Surfacing of steel and railways	9-9-06, Advance course on welding for railways (PKG)
12	Wear of metals	29-3-2007, Invited lecture, MED, NIT Hamirpur
13	Abrasive wear and weld surfacing	1-6-07, resource person, Continuing education programme on "Combating Wear" w.e.f. 29-5-07 to 02-6-07, IIT Roorkee
14	Combating wear by thermal spraying of wear resistant materials	1-6-07, resource person, Continuing education programme on "Combating Wear" w.e.f. 29-5-07 to 02-6-07, IIT Roorkee
15	Erosion & Its control in hydro turbines	30-10-07, resource person, Continuing education programme on "controlling erosion in hydro turbines" w.e.f. 30-10-07 to 02-11-07, IIT Roorkee
16	Controlling erosion by surface modification techniques	1-11-07, resource person, Continuing education programme on "controlling erosion in hydro turbines" w.e.f. 30-10-07 to 02-11-07, IIT Roorkee
17	Weld surfacing and thermal spraying for controlling cavitation erosion	02-11-07, resource person, Continuing education programme on "controlling erosion in hydro turbines" w.e.f. 30-10-07 to 02-11-07, IIT Roorkee

18	Total quality management	19-2-2008, resource person, Continuing education programme sponsored by Panjab state electricity board, Patiala w.e.f. Feb 18-22, 2008, IIT Roorkee
19	Controlling abrasion and erosion in cement plants: Overview	7-5-2008, resource person, Continuing education programme on "controlling abrasion and erosion in cement plants:", w.e.f. May 7-10, 2008, IIT Roorkee
20	Abrasion wear: Fundamental, mechanism other factors affecting it	8-5-2008, resource person, Continuing education programme on "controlling abrasion and erosion in cement plants:", w.e.f. May 7-10, 2008, IIT Roorkee
21	Thermal spraying (flame spraying) for controlling abrasive wear	9-5-2008, resource person, Continuing education programme on "controlling abrasion and erosion in cement plants:", w.e.f. May 7-10, 2008, IIT Roorkee
22	Weld surfacing: Fundamentals, Techniques, Materials and Their Applications	10-5-2008, resource person, Continuing education programme on "controlling abrasion and erosion in cement plants:", w.e.f. May 7-10, 2008, IIT Roorkee
23	Mechanical and metallurgical properties of weld joints and their relationship with process parameters	03-7-2008, resource person, AICTE sponsored short training programme on "recent advances in production and industrial engineering":, w.e.f. June 30-July 12, 2008, MANIT Bhopal
24	Thermal spraying and weld surface for controlling wear	03-7-2008, resource person, AICTE sponsored short training programme on "recent advances in production and industrial engineering":, w.e.f. June 30-July 12, 2008, MANIT Bhopal
25	Total quality management: Customer focus	04-7-2008, resource person, AICTE sponsored short training programme on "recent advances in production and industrial engineering":, w.e.f. June 30-July 12, 2008, MANIT Bhopal
26	Welding for fabrication and repair: Overview	20-12-2008, resource person, Continuing education programme on "Welding for fabrication and repair in hydro power industry", w. e. f. Dec 20-23, 2008, IIT Roorkee
27	Principles and practices in SMAW and GTAW	20-12-2008, resource person, Continuing education programme on "Welding for fabrication and repair in hydro power industry", w. e. f. Dec 20-23, 2008, IIT Roorkee
28	Metallurgical aspects in welding of stainless steel	21-12-2008, resource person, Continuing education programme on "Welding for fabrication and repair in hydro power industry", w. e. f. Dec 20-23, 2008, IIT Roorkee
29	Repair welding for prolonged life of hydro turbine components	21-12-2008, resource person, Continuing education programme on "Welding for fabrication and repair in hydro power industry", w. e. f. Dec 20-23, 2008, IIT Roorkee
30	Design of weld joints for static loading and welding symbols	22-12-2008, resource person, Continuing education programme on "Welding for fabrication and repair in hydro power industry", w. e. f. Dec 20-23, 2008, IIT Roorkee
31	Residual stress in weld joints, distortion and their control	22-12-2008, resource person, Continuing education programme on "Welding for fabrication and repair in hydro power industry", w. e. f. Dec 20-23, 2008, IIT Roorkee
32	Weld surfacing for controlling wear	23-12-2008, resource person, Continuing education programme on "Welding for fabrication and repair in hydro power industry", w. e. f. Dec 20-23, 2008, IIT Roorkee
33	Welding research activities in welding labs of MIED, IIT	02-12-2009, Invited speaker at Universidade Federal De Uberlandia, MG, Brazil

	Roorkee, India	
34	Principles and practices in gas cutting, welding and brazing: Overview	3-5-2010, resource person, Continuing education programme on Principles and practices in gas cutting, welding and brazing ", w. e. f. May 3-4, 2010, IIT Roorkee
35	Principles and practices in oxy-fuel gas cutting	3-5-2010, resource person, Continuing education programme on Principles and practices in gas cutting, welding and brazing ", w. e. f. May 3-4, 2010, IIT Roorkee
36	Methods of enhancing the productivity when using BMCG and Factors affecting performance of BMCG gas in terms of preheat time, cutting speed	4-5-2010, resource person, Continuing education programme on Principles and practices in gas cutting, welding and brazing ", w. e. f. May 3-4, 2010, IIT Roorkee
37	Welding of alloys steel: controlling problem	24-5-2010, resource person, Continuing education programme on "Welding of alloys steel: controlling problem ", w. e. f. May 24-27, 2010, IIT Roorkee
38	Gas metal and slag metal reactions in welding of alloys steel	24-5-2010, resource person, Continuing education programme on "Welding of alloys steel: controlling problem ", w. e. f. May 24-27, 2010, IIT Roorkee
39	Welding of HSLA steel, Q & T low alloy steel and heat treatable low alloy steel	25-5-2010, resource person, Continuing education programme on "Welding of alloys steel: controlling problem ", w. e. f. May 24-27, 2010, IIT Roorkee
40	Heat flow in welding and methodology of predicting the cracking tendency of steel weld joints	26-5-2010, resource person, Continuing education programme on "Welding of alloys steel: controlling problem ", w. e. f. May 24-27, 2010, IIT Roorkee
41	Cracking tendency of steels welds & their control	27-5-2010, resource person, Continuing education programme on "Welding of alloys steel: controlling problem ", w. e. f. May 24-27, 2010, IIT Roorkee
42	Residual stress and distortion control in welding of steel	27-5-2010, resource person, Continuing education programme on "Welding of alloys steel: controlling problem ", w. e. f. May 24-27, 2010, IIT Roorkee
43	Overview and basics of fusion arc welding processes such as arc heat generation, heat input and energy density concept and temperature distribution	15-7-2011, resource person in Continuing education programme on "controlling residual stresses, distortion and defects in weld joints, w. e. f. July 15-17, 2011, GNEC, IIT Roorkee, Greater Noida
44	Heat flow in weld zone affecting peak temperature, cooling rate, and effect of preheat	15-7-2011, resource person in Continuing education programme on "controlling residual stresses, distortion and defects in weld joints, w. e. f. July 15-17, 2011, GNEC, IIT Roorkee, Greater Noida
45	Factors affecting RS and their effect of residual stresses on mechanical performance of weld joints	15-7-2011, resource person in Continuing education programme on "controlling residual stresses, distortion and defects in weld joints, w. e. f. July 15-17, 2011, GNEC, IIT Roorkee, Greater Noida
46	Selection of welding process, parameter, welding sequence and consumable for controlling DISTORION	16-7-2011, resource person in Continuing education programme on "controlling residual stresses, distortion and defects in weld joints, w. e. f. July 15-17, 2011, GNEC, IIT Roorkee, Greater Noida
47	Controlling defects in	17-7-2011, resource person in Continuing education

	weldment of aluminium alloys	programme on “controlling residual stresses, distortion and defects in weld joints, w. e. f. July 15-17, 2011, GNEC, IIT Roorkee, Greater Noida
48	Controlling defects in weldment of stainless steel	17-7-2011, resource person in Continuing education programme on “controlling residual stresses, distortion and defects in weld joints, w. e. f. July 15-17, 2011, GNEC, IIT Roorkee, Greater Noida
49	Weld thermal cycle, residual stress and distortion in weld joints	16-12-2011, resource person in Continuing education programme on “Quality assurance and design of weld joints, w. e. f. Dec 14-16, 2011, IIT Roorkee,
50	Failure analysis and metallography: Overview	27-8-2012, resource person, Continuing education programme on “Failure analysis and metallography”, w. e. f. Aug 27-31, 2012, IIT Roorkee
51	Structure and property relationship for piston and piston ring materials	28-8-2012, resource person, Continuing education programme on “Failure analysis and metallography”, w. e. f. Aug 27-31, 2012, IIT Roorkee
52	Image analysis of micrographs	28-8-2012, resource person, Continuing education programme on “Failure analysis and metallography”, w. e. f. Aug 27-31, 2012, IIT Roorkee
53	Fundamental source of failure of mechanical component	29-8-2012, resource person, Continuing education programme on “Failure analysis and metallography”, w. e. f. Aug 27-31, 2012, IIT Roorkee
54	Procedure of metallurgical failure analysis of mechanical component	30-8-2012, resource person, Continuing education programme on “Failure analysis and metallography”, w. e. f. Aug 27-31, 2012, IIT Roorkee
55	Manufacturing process for quality assurance: overview	27-9-2012, resource person, Continuing education programme on “Manufacturing process for quality assurance”, w. e. f. Sep 27-28, 2012, held at THDC, Rishikesh
56	Heat treatment of ferrous metals: principles and practices	27-9-2012, resource person, Continuing education programme on “Manufacturing process for quality assurance”, w. e. f. Sep 27-28, 2012, held at THDC, Rishikesh
57	Defect in heat treated components and their remedy	28-9-2012, resource person, Continuing education programme on “Manufacturing process for quality assurance”, w. e. f. Sep 27-28, 2012, held at THDC, Rishikesh
58	Fundamental approaches for quality assurance in manufacturing through DT & NTD	28-9-2012, resource person, Continuing education programme on “Manufacturing process for quality assurance”, w. e. f. Sep 27-28, 2012, held at THDC, Rishikesh
59	Post heat treatment and in process cooling of FSW joints of Al alloys	03-11-2012 resource person in one day QIP workshop on advances in joining technologies: friction stir welding on Nov 03, 2012
60	Grain refinement of metal matrix in MMCs	05-07-2013 resource person in AICTE sponsored STC on processing and fabrication of MMCs held during July 1-5, 2013
61	Improving mechanical properties and wear resistance of Al alloys using FSP	30-11-2013 resource person in one day QIP workshop on advances in surface modification technologies: friction stir processing held on Nov 30, 2013

62	Advances in solid state joining technologies	9-7-2014 as a resource person QIP sponsored STC advances in materials processing and manufacturing technologies held during July 7-11, 2014
63	Failure analysis: Causes of failure and procedure of RCA	14-3-2015 as a resource person in one day QIP workshop on Failure analysis and prevention, March 14, 2015
64	Solid state joining and surface modification technologies	26-3-2015 key-note speaker in International conference on recent trends in mechanical engineering held at Jaipur during March 25-26, 2015.
65	Advances in Joining Technologies	23-11-2015 as a resource person in STP sponsored by Directorate of Technical Education, Bhopal held at RJIT Gwalior during Nov 23-27, 2015
66	Flux Assisted Gas Tungsten Arc welding of ASS for enhanced penetration	23-11-2015 as a resource person in STP sponsored by Directorate of Technical Education, Bhopal held at RJIT Gwalior during Nov 23-27, 2015
67	Overview of welding research activities at IITR with focus on FA-GTAW	01-12-2015, presentation and interaction with Faculty of Welding Group at University of Coimbra, Portugal
68	Advances in Joining Technologies; AGTAW and FSW	20-2-2016, as resource person in Three Day Workshop in Materials processing and Characterization at NIT Patna w.e.f. Feb 18-20, 2016
69	Enhancing productivity of diffusion bonding process	27-2-2016 as a resource person in one day QIP workshop on Advances in Solid State Joining Technologies, held on Feb 27, 2016
70	Laser Assisted Nitriding of 13/4 Cast Stainless Steel	13-05-2016 presentation of work done at IITR on Indo-Belarus bilateral project and interaction with research groups at Physical Technical Institute, Minsk
71	Joining Technologies: Zero defect; No effect	9-1-2017 as a resource person in 2 week day QIP STP on Make in India held on during Jan 3-14, 2017
72	Factors leading various defects in casting	10-7-2017 as a resource person in 1 week QIP STP on Enhancing yield in foundries during July 10-14, 2017
73	Melting treatment of molten metal	11-7-2017 as a resource person in 1 week QIP STP on Enhancing yield in foundries during July 10-14, 2017
74	Grain refinement and modification of cast Al-Si alloys	12-7-2017 as a resource person in 1 week QIP STP on Enhancing yield in foundries during July 10-14, 2017
75	Dissimilar steels joining by diffusion bonding and A-GTAW	13-11-2017 Expert Lecture at IGACR under IIM Kalapakkam Chapter

RESEARCH PUBLICATIONS

Total research papers published:	184
Research papers in International Journals:	116
Papers in other Refereed journals:	13
Domestic papers:	13
Papers in National/International Conferences:	42
Total citation of all publications	1990 (<i>h factor 23, g factor: 44.60 and i-10 index: 49</i>)
RG score	35.30

International Journal

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115. Ravi Vidyarthi, **D K Dwivedi**, Microstructure evolution and Charpy toughness relationship of A-TIG weld fusion zone for varying tempering time, **Trans. Ind. Inst. Metals** (accepted)
116. Sunil Sinhmar, **D K Dwivedi**, A study on corrosion behavior of friction stir welded and tungsten inert gas welded AA2014 aluminium alloy, **Corroison Science**, (accepted)

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154. Julian Ramirez, Enrique Martinez, **D K Dwivedi**, Sergio Haro, solution and aging heat treatment of cast Al-Si-Cu alloys, in proceeding of International Materials Research Congress on Materials Characterization held in Cancun, Mexico, Oct 28-Nov 1, 2007.
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171. Prabhkiran Kaur, **D K Dwivedi**, P M Pathak, An Effect of Electromagnetic Stirring on Microstructure, Mechanical properties and Wear behavior of 390 Aluminium-Silicon Alloys, Proceedings of International Conference on advanced material and processing held at I I T Kharagpur w. e. f. Dec 9-11, 2011
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182. R Arji, Dheerendra Kumar Dwivedi, Erosive Wear Behaviour of Ni-WC Coatings Developed by Flame Spraying, International Conference on Innovation in Engineering, held at Mauritius, during March 20-21, 2016
183. D K Srinath, **D K Dwivedi**, N K Jain, Electrode Wear in Resistance Spot Welding of Zinc-Coated Steel Sheets, present in Congress on Engineering and Technology, held at Shanghai, China during Oct 21-23, 2016
184. A. K. Rajak, B. B. Kumar, C. K. Meena, –D. K. Dwivedi “Grain Refinement of Cast Al-Si-Mg Alloys Using Electromagnetic Stirring” published in proceedings of International Conference on Nanoscience, Nanotechnology & Advanced Materials, Hong Kong, Jan 27-28, 2018

Sponsored Projects: 26					
Sr. No.	Period	Funding Agency	Title of Projects	Outlay (Rs. Lakhs)	Status
1	2002-2003	IIF, Hyderabad	Influence of vibrations and magnesium on grain refinement by Al-5Ti-1B of cast Al-Si alloys (R & D)	0.20 Lacs	Completed
2	2001-04	MHRD, Govt. of India	Studies on machining characteristics of cast Al-Si base alloys (R & D)	5.00	Completed
3	1999-2001	MHRD, Govt. of India	Modernization of Production section labs	5.00	Completed
4	2003-05	MHRD, Govt. of India	Modernization of Production section labs	6.00	Completed
5	2004-05	SRIC, IIT, Roorkee	Thermal spraying for enhanced life of tribological components (R & D)	1.00	Completed
6	2005-08	CSIR, New Delhi	Development of wear resistant piston materials (R & D)	9.26	Completed
7	2006-09	DST, Delhi	Process Modelling of Twin Wire Welding System (R & D)	8.62	Completed
8	2007-10	BRNS, Mumbai	Development of non-cobalt base cavitation resistant surface by laser cladding process (R&D)	13.95	Completed
9	2007-08	MOP, GOI	Investigation on the Failure of Aluminium Wound Distribution Transformers (R & D)	10.04	Completed
10	2008-09	DST, GOI	Surface modification technologies: (FIST)	50.0	Completed
11	2009-10	DST, GOI	Development of welding procedure for joining marine aluminium alloys (R & D)	1.9	Completed
12	2009-13	ARDB, DRDO	Weldbonding of aluminium structures (R & D)	22.452	Completed
13	2009-13	DST, GOI	Structural Instability in Friction Stir Weld Joints of Aluminium Alloys and their Effect on Mechanical Properties (R & D)	19.10	Completed
14	2010-12	DST, GOI	Development of fracture and fatigue resistant cast aluminium alloys produced by semi-solid metal casting and conventional casting processes (R & D)	8.39	Completed
16	2010-11	NPTEL II, MHRD	Web and video content development on "Welding Engineering: Process, Design, Inspection and Weldability"	5.0	Completed

17	2010-12	CSIR	Development of refined high strength cast hypereutectic Al-Si alloys	7.34	Completed
18	2013-16	DST	Development of nitrogen ion implantation of PVD coating on stainless steel substrates for improved mechanical and tribological performance	6.4	Completed
19	2014-17	DST	Investigation on plastic behavior of aluminium alloys during friction stir welding and its effect on weldability	6.4	Completed
20	2014-17	MoS	Development of diffusion bonding technology for producing fatigue and fracture resistant bonds of stainless steels and titanium alloys with different inter-layers	81.15	Ongoing
21	2013-16	CSIR	Corrosion behavior of friction stir weld joint of aluminium alloys (CSIR, New Delhi)	15.48	completed
22	2015-18	BRNS	Dissimilar steel welding by A-GTAW	32.5	Ongoing
23	2015-16	INSA	Exchange visit to explore possibility for collaborative project with Technische Universität Chemnitz, Germany in area of development of creep resistant Cr-Mo steel weld joints using activated flux GTAW and FSW	1.50	Completed
24	2016-17	NPTELIII MOOCs	Joining Technologies for Metals	3.0	Completed
25	2016-17	NPTEL III Moocs	Fundamentals of manufacturing technologies	4.5	Completed
26	2017-18	NPTEL III Moocs	Failure Analysis & Prevention	3.0	Completed
27	2017-18	NPTEL III Moocs	Fundamentals of surface engineering: mechanisms, processes and characterizations	4.5	
28	2017-18	NPTEL III Moocs	Joining Technologies for Metals (re-run)	2.0	IP

Activities to assist various Govt. bodies: Crime branch-CBI & Hon. High Court

- Failure investigation of cranes accidents at Jamrudpur site of DMRC, Crime branch Delhi Police
- Classification of plastic moulding machine as per direction of Hon. High Court, Nainital
- Screening of application for faculty position in engineering as per direction of Hon. High Court, Nainital
- Failure analysis of Girth gear cracking problem at Ambuja Cements Limited, Bhatinda
- Failure analysis of sluice valves HPSEB power project
- Failure analysis of penstock M/s Sai Engg Foundaiton

Funding Received for Internaitonal Travel

S. No.	Funding agency	Purpose	Period	Out lay (Rs.)
1	ITS, DST	Prsenting research paper in wear of materials conference 2009	April 19-23, 2009	0.9 L
2	ITS, DST	presenting research paper in international conference in manufacturing technologies	Sep 19-20, 2013	0.6 L
3	INSA	bilateral collaboration	July 6-25, 2015	1.3 L
4	ITS, DST	Presenting research paper in wear of materials conference 2017	March 26-30, 2017	1.17 L

Consultancy Projects: 51		49 completed and 2 in progress		
Period	Sponsoring organization	Title of Projects	Status	Outlay (Rs. In Lacs)
2006-2007	UJVSN, Dehradun	Recommendation of suitable IS standard for welding of pipes carrying fluid under pressure	Completed	0.10 Lacs
2007-08	Atlas Copco, Pune	To assist in selection of aluminium cylinder block manufacturer	Completed	1.30 lacs
2007-08	Industry & Institutions	Combating wear	Completed	1.20 lacs
2007-08	CRRI, New Delhi	Fatigue behaviour of bridge steel plates	Completed	3.14 lacs
2007-08	CCW, ACC, Chaibasa	Addressing erosive wear problems in VRM fan	Completed	1.46 lacs
2007-08	GCW, ACC, Gaggal	Root cause analysis of problems caused by excessive of separator fan and related imbalance	Completed	0.62 lacs
2007-08	Hydro Ind.	Controlling erosion in hydro turbines	Completed	2.56 lacs
2008-09	PWD, Garhwal	Recommendation on use of welding electrodes for fabrication and testing of 6013 electrode	Completed	0.56 lacs
2008-09	ACC/Ambuja Cement Ind.	Controlling abrasion and erosion in cement plants	Completed	1.20lacs
2008-09	GCW, ACC	Analysis of line stone sample	Completed	0.20 lacs
2008-09	GCW, ACC, Gaggal	Recommendation for controlling problems caused by erosion wear of separator fan blades	Completed	3.5 lacs
2008-09	CRRI, New Delhi	Fatigue studies of bridge steel plates	Completed	2.40 lacs
2008-09	Institutes & Industries	Welding for fabrication and repair	Completed	1.13 lacs
2009-10	CRRI, New Delhi	Fatigue studies of bridge steel plates	Completed	1.87 lacs
2009-10	Ambuja Cement Ltd, Bhatinda	Failure analysis of cracking problem of Girth gear	Completed	1.12 lacs
2009-12	BPCL, Mumbai	Studies on preheat time for BMCG & development suitable device / nozzle for efficient gas cutting	Completed	8.9 lacs

2009-10	CRRI, New Delhi	Fatigue studies of Railway bridge steel plates	Completed	1.86 Lacs
2010-11	Industry and Institutes	Welding of alloy steels: controlling problems	Completed	0.56 Lacs
2010-11	AIPL	Manufacturing process..... pipes	Completed	0.22 Lacs
2010-11	BPCL	Principles and practices in gas cutting, welding and brazing	Completed	2.0 Lacs
2010-11	CRRI, New Delhi	Fatigue studies of steel members	Completed	1.86 Lacs
2010-11	Crime branch, ISC, Delhi	Failure investigation of cranes accidents at Jamrudpur site of DMRC	Completed	0.71 Lacs
2010-11	Tata Growth Shop	To develop the procedure for welding of some engineering components	Completed	2.27 Lacs
2010-11	RDSO, LKO	Design and analysis of welded joints of stainless steel	Ongoing	8.50 Lacs
2011-12	CRRI, Delhi	Fatigue studies of bridge steel plates	Completed	1.87 Lacs
2011-12	THDC, TGS	Controlling residual stresses, distortion, and defects in weld joints	Completed	1.94 lacs
2011-12	Contractors and co Bhimatal	Studies on mechanical properties and zinc coating of GI wire	Completed	0.14 lakhs
2012-13	BPCL	Studies on characteristics of steel surfaces cut by BPCL and LPG	Completed	5.8 Lakhs
2012-13	JB Engg, Una	Studies on low cycle fatigue of steel couplers	Completed	6.23 Lakhs
2012-13	AGL, Mangalore	Controlling the problems of permanent formation in car glass windows	Completed	4.45 Lakhs
2012-13	JB Engg, Una	Studies on slip, static tensile and chemical analysis and corrosion studies	Completed	5.59 lakhs
2012-13	Sriram pistons & rings	Failure analysis and metallography	Completed	1.40 lakhs
2012-12	THDC, Rishikesh	Manufacturing process for quality assurance	Completed	1.405 lakhs
2012-13	SME, Mumbai	Development of hardfacing electrode	Ongoing	1.0 Lakh
2013-14	Panchsheel Fasteners	Studies on stud weld joints in respect of mechanical and chemical properties	Completed	1.1236 Lakhs

2013-14	Uttarakhand Jal Sansthan, Uttarkashi	Quality assessment of steel pipes	Completed	5.18 Lakhs
2013-14	NDMC, Delhi	Weld quality assessment for Re-development project of Connaught place, New Delhi	Completed	-
2013-14	BKT, Barauni	Development of QAP, production drawing and design of component for EOT cranes	Completed	12.94 Lakhs
2013-14	Texplas, Haridwar	Inspection of injection moulding machine to determine its classification	Completed	1.1236 Lakhs
2013-14	Satyam Enterprises, Haridwar	Evaluation of mechanical characteristics of false ceiling	Completed	0.702 Lakhs
2014-15	Baira Siul, NHPC, Chamba	Ultrasonic testing of gates and penstocks	Completed	5.618 Lakhs
2014-15	JBE, Una	Studies on mechanical properties of mechanical splices	Completed	4.49 Lakhs
2014-15	JB Re-bar and coupler, Umb, HP	High cycle fatigue studies of mechanical coupler	Completed	5.0 Lakhs
2015-16	Sriram piston	Chemical analysis and grade classification	Completed	0.70 Lakhs
2015-16	HPSEB Shimla	Failure analysis (RCA) of sluice valve of small hydro power station	Completed	2.28 Lakhs
2015-16	CPWD, Jodhpur	Studies on mechanical properties of mechanical splices	Completed	9.84 Lakhs
2015-16	Loktak, NHPC	NDT of HM component of Loktak power project	Completed	----Lakhs
2015-16:	UKJVNL	Mechanical and physical testing of pipes	Completed	0.76 Lakhs
2015-16	Sai Engg. Foundation	Failure analysis of penstock	Completed	7.98 Lakhs
2017-18	Nexa Metals	Classification of steels	Completed	2.48 Lakhs
2017-18	CPWD	Chemical, mechanical and corrosion	IP	-

		studies of mechanical couplers/splices		
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Research Supervision

M. Tech. Dissertation: 47 (46 awarded + 1 ongoing)		
Year	Name of student	Title
2004-06	Mr. Jaya Rajesh Manti	Investigation on the weldability of Al-Mg-Si alloys
2004-06	Mr. Keshav Prasad	Study the mechanical behavior of SAW joints of heat resistant steel
2004-06	Mr. Rambabu Arji	Investigation on erosive wear behavior of Ni-Cr, Co-WC coating deposited by detonation gun on stainless steel substrate
2004-06	Mr. Sriharsha Sudheer Ch.	Studies on wear behavior of Ni-WC and Co base alloy thermal sprayed coating deposited on steel substrate
2004-06	Mr. Rakesh Kumar	Investigation on pulsed MIG welding of thin sheets of aluminium
2004-06	Mr. T. V. S. Reddy	Studies on stir cast aluminium alloys
2005-07	Sri D V Kiran	Welding of dissimilar aluminium alloys
2005-07	Sri Ranganaykulu	Welding of heat treatable aluminium alloys
2005-07	Sri Jagan	Weld surfacing of aluminium alloys
2006-08	Mr. Kailash Kuhite	Experimental and analytical studies on surface roughness of EDMed surfaces
2006-08	Ms. S Srivastava	Investigation on mechanical and metallurgical properties of continuous compacted weld joints of aluminium alloys
2006-08	Ms. Reena Rani	Failure mechanics of aluminium transformers due to mechanical stresses
2006-08	Mr. Vijay K. Ojha	Analysis and control of imbalance in raw mill separator due to wear
2007-09	Narendra kumar	Modeling of residual stress in welded joints
2007-09	S. Raja Kiran	Development and characterization of Cavitation resistant non-cobalt base laser cladding
2007-09	P. Mohanta	Fracture and fatigue behavior of stir cast Al-Si alloys
2008-10	K Durga Prasad	Design and development of nozzle for enhanced performance of Oxy-fuel cutting of steels
2008-10	M F Khan	Weldbonding of aluminium alloys for improved mechanical performance
2008-10	B M Dhakar	Wear studies on thermal sprayed coatings on steel substrate
2008-10	D Srinath	Development of technology for enhanced performance of spot welding copper electrodes in welding of GI steel
2008-10	Ratnesh singh	Fracture and fatigue studies on friction welded aluminium alloys
2009-11	Mayank mittal	Studies on weld-bonding of aluminium alloys
2009-11	Surajit singh	The mechanical and tribological performance thermal sprayed components
2009-11	Neetu singh	Studies on laser assisted weld bonding of stainless steel
2009-11	Prashant Pandey	Development of fracture and fatigue resistant welded joints of stainless steels

2009-11	Dhananjay	Friction stir welding of similar and dissimilar aluminium alloys
2010-12	Shiv Raman	Corrosion fatigue of friction stir weld joints of aluminium alloys
2010-12	Avani	Transient liquid phase bonding of dissimilar metal systems
2010-12	Uday gupta	Stress corrosion cracking behavior of friction stir weld joints of aluminium alloys
2010-12	Anurag mani Tiwari	Fracture and fatigue behavior of GMAW welds of FSS
2010-12	Anand mondal	Weld-bonding of aluminium alloy sheets and their FE analysis
2011-13	Ravi Vidyarthi	Development of RE modified hardfacing electrode
2011-13	Sunil	Friction stir processing of aluminium alloys for improved for performance
2011-13	Naveen K Yadav	Plastic deformation during FSW and weldability of aluminium alloys
2011-13	Navneet Kumar	Friction stir spot welding of aluminium alloys
2011-13	Rohit Chuahan	PWHT of FSW joints of Al alloys for improved mechanical and metallurgical properties
2012-14	Omkar Chawla	Development of wear and corrosion resistant welding fluxes
2012-14	Nitin Saini	Friction stir processing of cast Al-Si alloys
2012-14	Amit Kumar	Hybrid FSW-adhesive joining of Al alloys
2012-14	Gaurav Sharma	Joining of dissimilar metals
2013-15	Sandhya	Nitrogen ion implantation and PVD coating of stainless steel
2013-15	Bhavesh	ATIG welding of stainless steel
2013-15	Krishna	Diffusion bonding of stainless steel
2013-15	Akash	Plastic flow behavior and weldability of aluminium alloys by FSW
2013-16	Swetank	FSW of Steel for enhanced mechanical performance
2014-16	Bhupesh	Laser welding for thin sheet of alloy steel
2014-16	Anagdha	Novel approaches for A-GTAW of steels
2014-16	Debolina	Improving the corrosion resistance of FSW joints
2014-16	Shivam	Structure and mechanical behavior of FSW steel
2014-16	Lokesh Tiwari	Diffusion bonding of steel for enhanced productivity
2015-17	Pushpraj	Diffusion bonding of steels using different interlayers
2016-18	Arun Jena	Joining of copper base alloys
2016-18	Gautam	Spot welding of steel-Aluminium alloys

Ph. D. Thesis supervision: 18: 13 awarded, and 5 in progress

			Status
2004-07	S Paul	Electro Magnetic Abrasive Finishing	Awarded (2007)
2006-09	S. Sharma	Abrasive and erosive wear of thermal sprayed coatings	Awarded (2009)
2006-09	M. Dhiman (ext.)	Development, characterization and optimization of wear resistant piston alloys	Awarded (2010)
2006-09	V R Rajeev	Reciprocating wear of AMCs	Awarded (2010)
2007-10	N. S. Beniwal	Failure analysis and performance enhancement of aluminium wound distribution transformers	Awarded (2011)

2008-11	Prabhkiran Kour	Studies on electromagnetically stir cast Al-Si alloys	Awarded (2012)
2007-11	P. K. Sood (ext.)	Machining of stir cast aluminium alloys	Awarded (2012)
2009-12	Chaitanya Sharma	Studies in friction welded aluminium alloys	Awarded (2012)
2010-14	Joy Prakash	Studies in ECH of gears	Awarded (2014)
2012-16	Y K Singla	Development of hardfacing electrodes for enhanced wear and corrosion resistance	Awarded (2016)
2013-17	Shiv Raman	Friction stir processing for improved mechanical performance	Awarded (2017)
2011-16	S Rao	ECH of cylindrical components	Awarded (2018)
2013-16	Ravi Shankar	Activated flux-TGAW of stainless steel	Awarded (2018)
2014-17	Gaurav sharma	Diffusion bonding of dissimilar steels	Ongoing (Single IITR)
2015-19	Sunil Sinhmar	Corrosion behavior of FSW joints	Ongoing (Single IITR)
2015-19	P Sharma	Dissimilar steel welding by flux assisted GTAW	Ongoing (Single IITR)
2016-20	Anup Kulkarni	Tri-metallic weld joint using A-GTAW	Ongoing (Single BRNS)
2017-21	Pankaj Kumar	Stee-Al Joining using external energy assisted FSW	Ongoing (Single, IITR)